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EXAMINER

HINZE, LEO T

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,780

Applicant(s)

MOULIN, MICHEL

Examiner

Leo T. Hinze

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 47-87 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 85 and 86 is/are allowed.
- 6) ☒ Claim(s) 1, 47-77, 79-82 and 87 is/are rejected.
- 7) ☒ Claim(s) 78, 83 and 84 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

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DETAILED ACTION

Response to Amendment

1. The amendment filed on 6 May 2003 has been entered-in-part. The Amendments to the Specification on pages 3 and 4 of the amendment have not been entered because the line numbers indicating where the paragraphs begin are incorrect.

Specification

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

3. The disclosure is objected to because of the following informalities:

It appears that "[SN ***]" on page 12, line 28, should be replaced with the appropriate serial number.

It appears that "two-axe" on page 16, line 17 should be --two-axis--.

It appears that "focussing" on page 2, line 5, should be --focusing--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 79-82 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 79-82 recite the limitation "the carrier" in line 1. There is insufficient antecedent basis for this limitation in the claim. It appears that "the carrier" should be "the carriage".

Appropriate clarification and/or correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 47-48, 51-52, 54-59, 61, 63, 67-68, 71, and 87 are rejected under 35 U.S.C. 102(b) as being anticipated by Landsman, US 4,764,815.

Regarding claim 1, Landsman teaches a flat bed platesetter system for imaging radiant energy onto a printing plate (col. 1, lines 7-9), the system comprising: (a) drive means (56, 58) for moving the printing plate in a direction of movement over stationary supporting elements (26, 28); (b) an optical head (12) movably mounted on a stationary bridge (14, 14a), adapted to move across the direction of movement of the printing plate ("moves transversely across... the surface to be scanned", col. 3, lines 14-15) and being provided for emitting radiant energy onto the printing plate (col. 3, lines 5-12).

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Regarding claim 47, Landsman teaches a flat bed platesetter system for imaging radiant energy onto a printing plate (col. 1, lines 7-9), the system comprising: (a) a carriage (30) for moving the printing plate in a direction of movement over stationary supporting elements (26, 28); (b) an optical head (12) movably mounted on a stationary bridge (14, 14a), adapted to move across the direction of movement of the printing plate (col. 3, lines 14-15), wherein the optical head comprises emitters (92) for emitting radiant energy onto the printing plate.

Regarding claim 48, Landsman teaches a flat bed platesetter system for imaging radiant energy onto a printing plate (col. 1, lines 7-9), the system comprising: (a) an optical head (12) movably mounted on a stationary bridge (14, 14a) and adapted to move across a direction of movement of the printing plate (col. 3, lines 14-15); and (b) a radiant energy emitting source (92) provided at or in the optical head emitting radiant energy onto the printing plate.

Regarding claim 51, Landsman teaches a flat bed platesetter system for imaging radiant energy onto a printing plate (col. 1, lines 7-9), the system comprising: (a) a support area (30) movably supporting the printing plate in a direction of movement; (b) an optical head (12) movably mounted on a stationary bridge (14, 14a) and adapted to move across the direction of movement of the printing plate (col. 3, lines 14-15), wherein the optical head comprises emitters (92) for emitting radiant energy onto the printing plate; and (c) a drive assembly comprising: (i) a carriage member (30, 32) for carrying the printing plate; (ii) an electric linear motor ("electrically driven actuators", col. 8, line 50) driving the carriage member; and (iii) an encoding system for defining the position of the printing plate along its path of movement (col. 9, lines 4-22).

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Regarding claim 52, Landsman also teaches wherein the carriage member is provided in a center position of a support area supporting the printing plate (Fig. 1).

Regarding claim 54, Landsman also teaches bearing means (40, 42, 44, 46, 48, 49) for movably supporting the printing plate in the direction of movement.

Regarding claim 55, Landsman also teaches wherein the printing plate comprises a thermosensitive or photosensitive (col. 5, lines 39-40) material.

Regarding claim 56, Landsman also teaches wherein the head comprises a spatial modulator ("beam modulator", col. 11, line 62) illuminated by at least one of the emitters ("laser", col. 11, line 62) and an optic (90) forming the image of the modulator onto the printing plate.

Regarding claim 57, Landsman also teaches wherein the at least one emitter is a laser emitter.

Regarding claim 58, Landsman also teaches wherein the carriage includes a longitudinally moving element of a linear motor (57, 59).

Regarding claim 59, Landsman also teaches wherein the carriage is supportingly guided by at least one element (26, 28).

Regarding claim 61, Landsman also teaches wherein the carriage comprises a carriage member located in the middle of the width of the flat bed (Fig. 1).

Regarding claim 63, Landsman also teaches printing plate positioning means for bringing the printing plate into a defined and centered position prior to imaging (col. 5, lines 58-61).

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Regarding claim 67, Landsman also teaches an encoding system for properly defining the position of the carriage member along its path of movement (col. 9, lines 4-22).

Regarding claim 68, Landsman also teaches printing plate squaring means to position the plate at a defined longitudinal position prior to imaging (col. 5, lines 58-61).

Regarding claim 71, Landsman also teaches a plurality of low-friction elements (40, 42, 44, 46, 48, 49) are arranged to form a supporting surface extending the length of the platesetter.

Regarding claim 87, Landsman teaches a method for imaging a printing plate with radiant energy in a flat bed platesetter (col. 1, lines 7-9), the method comprising: (a) providing a flat bed platesetter having a support area (24), wherein the platesetter comprises: (i) a carriage (30) for moving the printing plate in a direction of movement over stationary supporting elements; and (ii) an optical head (12) movably mounted on a stationary bridge (14, 14a) adapted to move across the direction of movement of the printing plate (col. 3, lines 14-15), wherein the optical head comprises emitters (92) for emitting radiant energy onto the printing plate; (b) providing a printing plate on a support area of the flat bed platesetter (col. 5, lines 44-61); (c) positioning the printing plate on the support area (col. 5, lines 44-61); (d) moving the printing plate in a first direction (col. 3, lines 47-48); and (e) moving a radiant energy emitting head in a second direction substantially perpendicular to the first direction to provide an image on the printing plate (col. 3, lines 14-15).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 49, 62, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landsman in view of Hinckley, US 2,982,387.

Regarding claims 49 and 62, Landsman teaches a flat bed platesetter system for imaging radiant energy onto a printing plate, the system comprising: (a) a carriage for moving the printing plate in a direction of movement; (b) a support for supporting the flat bed platesetter system; and (c) an optional storing and delivery system for a plurality of printing plates having a support and delivery area.

Landsman does not teach (b) a support for supporting the flat bed platesetter system in a downwardly inclined manner with respect to the direction of movement of the printing plate; and (c) an optional storing and delivery system for a plurality of printing plates having a support and delivery area which is downwardly inclined or inclinable to feed a printing plate by gravitational force onto a support area of the flat bed platesetter (claim 49); except wherein the system is inclined in the direction of movement of the printing plate (claim 62).

Hinckley teaches a support system in a downwardly inclined manner with respect to the direction of movement of the supported item (e.g. Fig. 1) (claim 49).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the supports of Landsman to be downwardly inclined, because Hinckley teaches that an inclined path allows one to make use of gravity to move articles.

Regarding claim 72, Landsman also teaches wherein the support comprises a supporting surface divided into a loading zone (with loader 33) to receive plates to be imaged, an imaging zone where plates are subjected to radiant energy and imaged, and an ejection zone (with unloader 35) to receive the imaged plates (Fig. 1).

10. Claims 50, 60, 64-66, 69-70, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landsman in view of Rinke et al., US 5,934,195.

Regarding claim 50, Landsman teaches a flat bed platesetter system for imaging radiant energy onto a printing plate, the system comprising: (a) a carriage for moving the printing plate in a direction of movement; (b) an optical head movably mounted on a stationary bridge, adapted to move across the direction of movement of the printing plate, wherein the optical head comprises emitters for emitting radiant energy onto the printing plate; and (c) printing plate positioning means for bringing the printing plate into a defined position onto a support area prior to imaging.

Landsman does not teach printing plate positioning means for bringing the printing plate into a defined position onto a support area prior to imaging, wherein a first positioning element is provided at a first lateral side, second and third positioning elements are provided at the opposite second lateral side, and at least a fourth positioning element is provided at a downstream end of the support area.

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Rinke teaches an apparatus for and method of exposing lithographic plates, including printing plate positioning means for bringing the printing plate into a defined position onto a support area prior to imaging wherein a first positioning element is provided at a downstream first side (113), second and third positioning elements are provided at a second opposite side (103) , and at least a fourth positioning element (105) is provided at a third lateral side of the support area (Fig. 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Landsman wherein a first positioning element is provided at a downstream first side (113), second and third positioning elements are provided at a second opposite side (103) , and at least a fourth positioning element (105) is provided at a third lateral side of the support area, because Rinke teaches that this is an effective method of accurately positioning a plate on a platesetter system.

Regarding claim 60, Landsman does not teach wherein the carriage comprises at least one vacuum gripper holding the printing plate.

Rinke teaches a flat bed platesetter system for imaging radiant energy onto a printing plate wherein the carriage comprises at least one vacuum gripper (71) holding the printing plate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Landsman wherein the carriage comprises at least one vacuum gripper holding the printing plate, because Rinke teaches that this is an effective method of securely holding a plate on a platesetter system.

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Regarding claim 64, the combination of Landsman and Rinke teaches all that is claimed as discussed in the rejection of claims 50 and 63.

Regarding claim 65, the combination of Landsman and Rinke teaches all that is claimed as discussed in the rejection of claim 64.

Regarding claim 66, the combination of Landsman and Rinke teaches all that is claimed as discussed in the rejection of claim 64.

Regarding claim 69, the combination of Landsman and Rinke teaches all that is claimed as discussed in the rejection of claims 50 and 68.

Regarding claim 70, the combination of Landsman and Rinke teaches all that is claimed as discussed in the rejection of claims 50 and 68.

Regarding claim 82, the combination of Landsman and Rinke teaches all that is claimed as discussed in the rejection of claims 50 and 51.

11. Claims 53 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landsman in view of Yaginuma US 5,220,356.

Landsman teaches a flat bed platesetter system for imaging radiant energy on a printing plate, the system comprising: (a) an optical head movably mounted on a stationary bridge and adapted to move across a direction of movement of the printing plate; and (b) a carriage for moving the printing plate in the direction of movement as discussed in the above rejection of claim 47.

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Landsman does not teach wherein the carriage comprises at least one radiation intensity detector (claim 53); and wherein the carrier is provided with a radiation intensity detector (claim 79).

Yaginuma teaches an image forming apparatus for forming an image on a photosensitive sheet with a laser, including a photosensor (13) for detecting the intensity of the laser beam (e.g. col. 5, lines 26-27).

Regarding claim 53, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Landsman to include a radiation intensity detector, because Yaginuma teaches that such a detector is advantageous for improving reliability in an image forming apparatus.

Regarding claim 79, the combination of Landsman and Yaginuma teaches all that is claimed as discussed above.

12. Claims 73 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landsman in view of Hinckley as applied to claims 49, 62, and 72 above, and further in view of Eberhard, US 5,437,360.

Regarding claims 73 and 74, the combination of Landsman and Hinckley substantially teaches all that is claimed as discussed in the rejection of claims 49 and 72, except wherein the loading zone comprises arrays of parallel, longitudinally aligned roller-bearing channels to receive and support plates (claim 73); and wherein the array is disposed on each side of the path of the carriage (claim 74).

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Eberhard teaches a conveying system, with a drive means, and a support system consisting of elongated arrays of idler rollers (3) extending longitudinally parallel next to each other (e.g. Fig. 2), the arrays disposed on each side of the path of a belt (2).

Regarding claims 73 and 74, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Landsman wherein the loading zone comprises arrays of parallel, longitudinally aligned roller-bearing channels, disposed on each side of the path of the carriage, to receive and support plates, because Eberhard teaches that such an arrangement is advantageous for conveying articles without the need for special pallets or containers to hold the articles.

13. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over Landsman in view of Hinckley and Eberhard as applied to claims 73 and 74 above, and further in view of Tipton et al, US 5,115,920.

The combination of Landsman, Hinckley, and Eberhard substantially teaches all that is claimed as discussed in the above rejection of claim 73, except wherein one of the roller-bearing channels is movable.

Tipton teaches a system with a plurality of roller-bearing channels (22, 24) which are movable (e.g. Fig. 13, slots 54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Landsman wherein the roller-bearing channels are moveable, because Tipton teaches that such an arrangement is less expensive to manufacture than other arrangements.

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14. Claims 76 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landsman in view of Hinckley as applied to claims 49, 62, and 72 above, and further in view of Weeks et al., US 5,227,606.

The combination of Landsman, Hinckley, and Eberhard teach all that is claimed as discussed in the above rejection of claim 72, except wherein the supporting zone includes a plurality of rows of bearings inserted in solid plates (claim 76); and wherein a plurality of rows of pressure bearings maintain the plate against rows of precision bearings (claim 77).

Weeks teaches a laser cutting machine with bed for supporting plates or sheets, wherein the bed (14) is a ball-transfer table, and the laser head (28) has roller balls (52) positioned in its bottom operating surface, opposite sets of roller balls (56) in a support assembly (46).

Regarding claims 76 and 77, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Landsman wherein the supporting zone includes a plurality of rows of bearings inserted in solid plates and wherein a plurality of rows of pressure bearings maintain the plate against rows of precision bearings, because Weeks teaches that such an arrangement is advantageous for precise positioning of the sheets.

Response to Arguments

15. Applicant's arguments with respect to claims 1, 47-84, and 87 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

16. Claims 85 and 86 are allowed.

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17. Claims 78, 83, and 84 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. Claims 80, and 81 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

19. For a statement of reasons for the indication of allowable subject matter, see the previous Office Action.

20. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

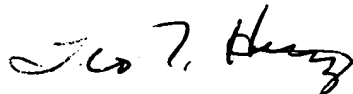
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

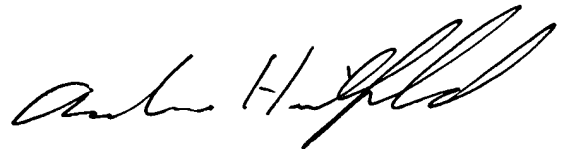
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is (703) 305-3339. The examiner can normally be reached on M-F 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (703) 305-6619. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0952.



Leo T. Hinze
Patent Examiner
AU 2854
June 19, 2003



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